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**United States Patent** [19]**Brown**[11] **Patent Number:** **5,848,492**[45] **Date of Patent:** **Dec. 15, 1998**[54] **AGRICULTURAL METHODS WITH  
SUPERHEATED STEAM**[76] **Inventor:** **Claude E. Brown, 14281 Vintage Rd.,  
Lodi, Calif. 95240**[21] **Appl. No.:** **958,073**[22] **Filed:** **Oct. 27, 1997****Related U.S. Application Data**[63] **Continuation-in-part of Ser. No. 642,534, May 3, 1996.**[51] **Int. Cl.<sup>6</sup>** ..... **A01M 15/00; A01G 13/00**[52] **U.S. Cl.** ..... **47/1.44; 47/58**[58] **Field of Search** ..... **47/1.44, 58**[56] **References Cited****U.S. PATENT DOCUMENTS**

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Methods for treating plants and fields in agricultural applications are provided by selective delivery of superheated steam. Particularly preferred applications include delivery adjacent to grape vine leaves in order to defoliate basal leaves and to kill localized insect pests, and by injecting superheated steam in strawberry beds prior to planting to kill nematodes. The superheated steam is delivered at temperatures in excess of about 250° F.

**18 Claims, 6 Drawing Sheets**